

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2001-039034

(43)Date of publication of application : 13.02.2001

(51)Int.Cl.

B41M 5/26  
C07D487/04  
G11B 7/24  
// C07D235/14  
C07D263/56  
C07D277/66  
C07D405/04  
C07D413/04  
C07D413/10  
C07D513/04

(21)Application number : 11-220067

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(22)Date of filing : 03.08.1999

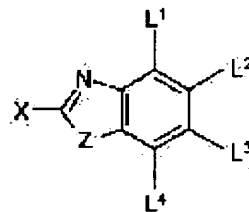
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## (54) OPTICAL RECORDING MEDIUM

## (57)Abstract:

PROBLEM TO BE SOLVED: To obtain a recording layer adapted to ultra-high density recording capable of recording and reproducing with a laser beam selected from a specific wavelength range, by incorporating a compound represented by a specific formula in the layer in an optical recording medium having at least the recording layer and a reflecting layer on a base plate.

SOLUTION: In a write once optical recording medium such as a CD-R or the like containing a compound capable of recording and reproducing with a blue laser beam, a compound represented by the formula is incorporated in a recording layer provided on a base plate, and the medium is recorded and reproduced with the beam selected from a range of 400 to 5,000 nm of a wavelength, wherein a substituent X is a halogen atom, hydroxyl group, cyano group or the like, L1 to L4 are each a hydrogen atom, halogen atom, hydroxyl group, substituted or unsubstituted alkyl group or the like, and Z is an oxygen atom, a sulfur atom or the like. As a material of the plate, a material which may be fundamentally transparent to a recording light and a reproducing light, and, for example, a polymer material such as an epoxy resin or the like or an inorganic material such as a glass or the like is used.



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**LEGAL STATUS**

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[Kind of final disposal of application other than the  
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registration]

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## \* NOTICES \*

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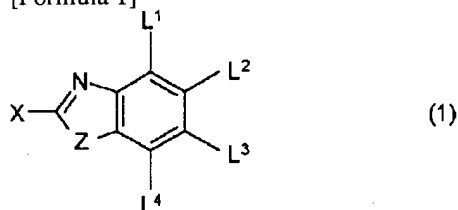
1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

## CLAIMS

[Claim(s)]

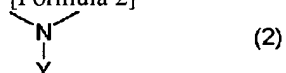
[Claim 1] The optical recording medium which contains the compound shown by the general formula (1) in a recording layer in the optical recording medium which has a recording layer and a reflecting layer at least on a substrate.

[Formula 1]



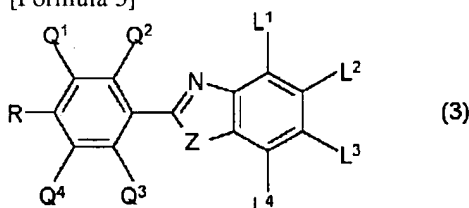
No permuting independently Substituent X among {type, respectively Or a halogen atom, The alkyl group which is not permuted [ hydroxyl, a cyano group, a permutation, or ], an aralkyl radical, An aryl group, an alkenyl radical, an alkoxy group, an aralkyloxy radical, an aryloxy group, An alkenyloxy radical, an alkylthio group, an aralkyl thio radical, an aryl thio radical, An alkenyl thio radical, the mono-permutation amino group, the JI permutation amino group, an acyl group, An alkoxy carbonyl group, an aralkyloxy carbonyl group, an aryloxy carbonyl group, An alkenyloxy carbonyl group, a mono-permutation aminocarbonyl radical, a JI permutation aminocarbonyl radical, The aryl group and hetero aryl group which were permuted by the acyloxy radical, the alkyl sulfonyl group, the aryl sulfonyl group, or the heterocycle radical are expressed. L1, L2, L3, and L4 It may connect respectively independently or mutually and a ring may be formed. A hydrogen atom, The alkyl group which is not permuted [ a halogen atom, hydroxyl, a cyano group, a permutation, or ], An aralkyl radical, an aryl group, an alkenyl radical, an alkoxy group, an aralkyloxy radical, An aryloxy group, an alkenyloxy radical, an alkylthio group, an aralkyl thio radical, An aryl thio radical, an alkenyl thio radical, the mono-permutation amino group, the JI permutation amino group, An acyl group, an alkoxy carbonyl group, an aralkyloxy carbonyl group, An aryloxy carbonyl group, an alkenyloxy carbonyl group, a mono-permutation aminocarbonyl radical, Expressing a JI permutation aminocarbonyl radical, an acyloxy radical, an alkyl sulfonyl group, an aryl sulfonyl group, or a heterocycle radical, Z is an oxygen atom, a sulfur atom, or a formula (2) independently, respectively.

[Formula 2]



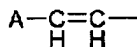
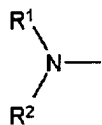
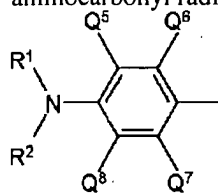
Substituent Y expresses independently the alkyl group which is not permuted [ a hydrogen atom, a permutation, or ], an aralkyl radical, an aryl group, and an alkenyl radical among [type, respectively. ] It comes out and the imino group which is not permuted [ the permutation shown or ] is expressed. However, a general formula (1) is a general formula (3).

[Formula 3]



Z, L1, L2, L3, and L4 express the same semantics as Z, L1, L2, L3, and L4 of a formula (1) among [type. Independently Q1, Q2, Q3, and Q4, respectively A hydrogen atom, a halogen atom, The alkyl group which is not permuted [ hydroxyl, a cyano group, a permutation, or ], an aralkyl radical, An aryl group, an alkenyl radical, an alkoxy group, an aralkyloxy radical, an aryloxy group, An alkenyloxy radical, an alkylthio group, an aralkyl thio radical, an aryl thio radical, A monoalkylamino radical, a dialkylamino radical, the mono-aralkyl amino group, A diaralkylamino group, a mono-arylamino radical, the diaryl amino group, The mono-alkenyl amino group, the dialkenyl amino group, an acyl group, an alkoxy carbonyl group,

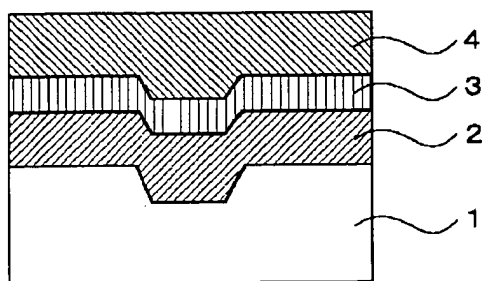
Expressing an aralkyloxy carbonyl group, an aryloxy carbonyl group, an alkenyloxy carbonyl group, a monoalkyl aminocarbonyl radical, a dialkylamino carbonyl group, or a heterocycle radical, R is following semantics [\*\* 4].



Although substituents R1 and R2 may connect R1 and R2 mutually, and may form a ring independently among a formula, respectively and it is the alkyl group which is not permuted [ a hydrogen atom, a permutation, or ], an aralkyl radical, an aryl group, or an alkenyl radical, R1 and R2 do not become a hydrogen atom at coincidence.

Drawing selection drawing 1

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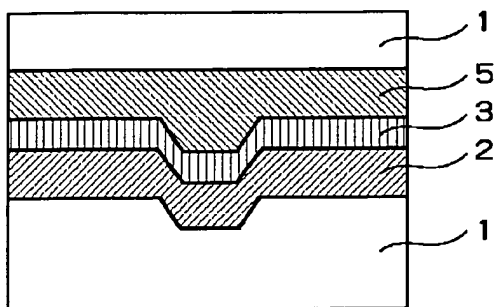


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Drawing selection drawing 2

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